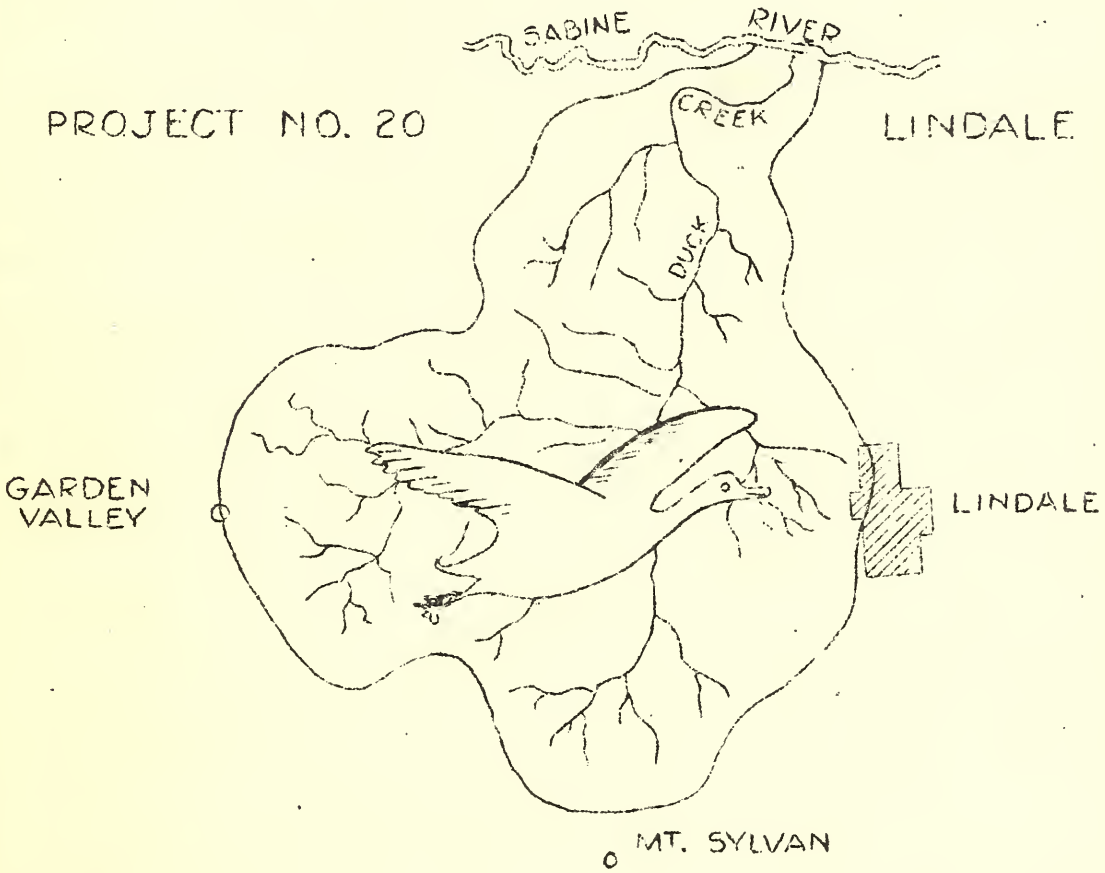
DUCK CREEK NEWS

UNITED STATES
DEPARTMENT OF THE INTERIOR
SOIL EROSION SERVICE

PROJECT NO. 20

LINDALE TEXAS



CHEAP AS DIRT

A long time ago, probably in the days when settlers were few and land so plentiful that when a man "wore out" a farm he could move to a new country and clear new land, there originated one of our common American sayings, "Cheap as dirt".

We still use the old saying when we wish to express contempt for a thing, -- to convey the idea that something is mere trash and so low in value that it can be compared to nothing besides dirt itself.

Times have changed. There is no longer land free for the taking. Yet there are many of us who still take the old "cheap as dirt" attitude toward the land. We exploit the land instead of conserving it. We mine it instead of building it up. We do little or nothing to check erosion which is year by year thinning the layer of top soil from which we get our sustenance. We forget that for centuries to come people, and more people will struggle to make a living on this same land which we have so badly abused.

Let us discard the old "cheap as dirt" idea and attitude. Remembering that life depends on ability to secure food, and clothing and shelter, and that these things are products of the soil, let us set up a new standard by which things of highest value may be compared. For those who come after us, and must wear the yoke of our neglect, nothing will be so "PRICELESS AS THE SOIL".

MOISTURE CONSERVATION

Newspapers are headlining the fact that in many sections of the Southwest winter and spring rains have not been sufficient to restore to the soil its normal moisture content. In some sections it is believed that without unusually well distributed summer rains there is not enough season in the ground to make crops. We know that in this section the soil moisture is considerably below normal for this time of year.

As the humorist has said, "We all talk about the weather, but nobody does anything about it!" Heavy spring rains may set in and give us more water than we need, but, on the other hand, we may need every drop of water we get to make our crops this year. You can't control the weather, but you can influence the amount of water your soil will hold. If your land is prepared to take up and hold more water than it has held in past years, you have that much drouth insurance.

It so happens that a complete erosion control program is also an effective moisture conservation program. Crop rotation, turning under of green manure crops to build up the humus content of the soil, strip cropping, putting beds and rows on the contour, terracing, treatment of gullies and badly eroded areas, reforestation, contour furrowing and seeding of pastures -- these all help to put your land in a condition so that it can take up and hold more moisture for plant growth.

Water held on the land by erosion control devices may be the salvation of your crops this summer.

NEW DAMAGES FROM SOIL EROSION

Gullies, clay galls, sanded-over bottom land, -- these are all well known and very obvious damages done by soil erosion. Now a new damage is brought to our attention in the following recent release:

A new and menacing aspect of the soil erosion problem has been discovered in the rapid spread of plant disease and weed pests in certain sections of the West.

Soil washed from eroding and disease-infested slopes is carrying infection to lower lands which, because of their more resistant character, have hitherto been unaffected.

The disclosure was made in a report submitted to Dr. Walter C. Lowdermilk, Vice-Director of the Soil Erosion Service, by Vincent F. Blanchard, County Agent, and T. R. Merryweather, Assistant County Agent, for Ventura County, California. According to Dr. Lowdermilk, it is the first time attention has been called to the danger involved in the erosive shifting of germ-laden soil.

"In addition to damage from depositing soil which usually is of a different type from the original soil", the report stated, "greater damage is occasioned by the spreading of insidious diseases and pests."

"The common garden nematode (root-knot) is rapidly being spread over this area by washing of infected soil above to the lower more fertile lands. The lower lands generally are heavier in type with less adaptation to nematodes, but with a light soil on top conditions are made favorable for nematodes to thrive. The same is true with wire worm infections."

"Fusarium dry rot attacking lima beans has become a great problem on these areas where light soil was deposited. Also, weed seed is being scattered annually over fields, with resultant great expense to the farmer."

Commenting on the report, Dr. Lowdermilk declared that the problem of disease-spreading has not been fully studied by the Soil Erosion Service. In view of the situation in California, he said, however, the Service will make an investigation immediately to determine the extent to which similar conditions are prevalent in other sections of the country.

RAIN GAGES INSTALLED

During the past week two recording and four standard rain gages were installed on farms in the Duck Creek watershed, and one standard gage was set in Lindale. The recording gages are located on the farms of C. W. Flewellen and S. S. Copeland, and another will soon be located near the home of B. A. Elliott. The standard gages are on the farms of T. R. Hazel, M. F. Hall, W. E. Yarbrough, and the County Farm. These widely scattered points were selected so that it might be possible to determine the distribution of each rain over the area.

Cooperators on whose farms these gages are located are giving us valuable assistance by reading the gages after each rain, and if you are interested in seeing the gages and learning how rainfall measurements are taken, they will be glad to demonstrate them.

BLACK LOCUST

In a majority of cases black locust seedlings have been planted in the poorest, most eroded spots along gullies on cooperating farms. The fact that they have been put on the poorest soil makes it necessary that they be given some assistance in getting started. Black locust thrives under cultivation and the seedlings will double their growth during the first year if given two or three hoeings to keep down weeds and conserve moisture. After the first year, if they were given a good start, they should take care of themselves.

Young black locusts must be protected from grazing, as cattle, horses and hogs all will eat them in preference to grass.

Because black locust is a legume it is a soil builder and will enrich the soil where it grows. It has a wide spreading root system which is highly effective in holding the soil from washing. Its top and leaves are thin enough that sunshine comes through and permits growth of grasses. Last, but not least, black locust makes fence posts which have few equals from the standpoint of lasting quality.

Given proper care and protection these black locusts may prove to be one of the most profitable crops ever grown on your farm. Don't forget them!

SOILS OF THE DUCK CREEK AREA

Kirvin, Bowie, Nacogdoches, Norfolk and alluvial soils of the Duck Creek area have been described in past issues of the NEWS. Now we take up the Ruston series, one of our more reliable, yet not widely distributed soils.

Ruston Fine Sandy Loam: Under forest conditions, the Ruston fine sandy loam consists of 0-1 inch of a dark gray or brownish gray fine sand on loamy fine sand, having a few small iron concretions scattered over the surface in some cases. This is underlain by a reddish yellow, yellowish red or grayish red fine sand or loamy fine sand to an average depth of twelve inches. This merges with a reddish yellow or yellowish red friable sandy clay which is several feet thick. The sandy clay subsoil grades slowly with a less dense yellowish red sandy clay parent material or C horizon.

This type includes some small areas of soil that might have been separated as Orangeburg fine sandy loam.

The Ruston is not very extensive in this area and practically all of it is in cultivation and generally shows very little sheet erosion. Where gullies have formed, this type of erosion is serious as the banks slough off readily creating a wide broad-based, steep-sided gully which is difficult to control.

Surface and internal drainage is good on this type permitting high absorption of rainfall, and making the soil drouth resistant.

Normally Ruston fine sandy loam is adapted to general farm crops and is generally fairly productive. Strip cropping, contour tillage, terracing, addition of organic residues, and good crop rotation are necessary to maintain productivity of this soil type and prevent erosion.

Ruston Fine Sandy Loam, Deep Phase: The main difference in this type from the fine sandy loam is the depth of the surface soil which ranges from fifteen to thirty inches, being loamy fine sand to fine sandy loam. The subsoil and parent material are the same as in the fine sandy loam type. Drainage on this soil is very good and the soil is planted to general farm crops. This soil responds well to improvement with the use of soil building crops and erosion control measures, such as contour cultivation and strip cropping.

The nature of the soil makes it erosion resistant and runoff is low. This type occupies smooth areas and gentle slopes and rarely is eroded severely.

WIND EROSION

The dust that you washed out of your ears last Saturday night may have originally belonged to some unfortunate farmer in Kansas, Oklahoma or West Texas, but some of it undoubtedly came from farms right here in the Duck Creek area.

The unusually large amount of soil that has blown from our farms this season only emphasizes the need of protection. The coarse sand from our fields may be found drifted along the road ditch or behind a clump of vegetation, but the fine material, the productive, valuable part of the soil is the part which is carried away completely by the wind.

If our lighter soils are to be kept from blowing away they must have more vegetative cover. In some cases reforestation may be the thing which will best solve the problem of holding the soil. In other cases development of permanent pastures will do the work. If the land is to be kept in cultivation, a cropping system which will keep it covered just as nearly twelve months out of the year as is possible is advisable. Strip crops of adapted plants will help a great deal.

Wind erosion is not new in East Texas nor is it yet as serious as in other sections, but it is serious enough that we should give thought to protecting our soils from such losses.

KUDZU

A number of cooperating farmers in the area have been furnished Kudzu crowns, which have been set in treated gullies and on badly eroded spots for the primary purpose of holding the soil from further erosion damage.

Once Kudzu is well established it is a hardy vigorous grower, but during the first year while its root system is growing it is a very delicate plant and must be given care, cultivation, and protection from trampling and grazing. It is recommended that the young plants be hoed around just as you would squash or melons during its early growth to keep down weeds and furnish a moisture conserving mulch. Hoeing during April, May and June will pay big dividends in increased vigorous growth, and is necessary to get the plants in condition to withstand the hot summer and first winter freezes.

We have seen immense gullies completely stopped with Kudzu. We know that it builds up and fertilizes the land on which it grows. It furnishes excellent grazing for livestock after it is well established. Let's take

FARM PLANNING

The farm planning phase of the Soil Erosion Service program is highly important. Frequently better control of erosion is obtained by changing the arrangement and usage of certain fields or parts of the farm. In many cases the appearance of the farm is improved, and its value thus increased. Often the fields and pastures are made much more convenient to get to and cultivate, eliminating lanes and trails and making good land available for crops. Often by changing field boundaries and putting several patches into one field the labor cost of producing a crop is reduced, and, as we all know, the cost of producing a crop nearly always tells the story of profit or loss on that crop. Running the rows on the contour, following a strip crop or a terrace, will on many of our fields give longer rows, in addition to being a good erosion control practice.

The following article taken from "Progressive Farmer" tells its own story:

"Longer rows save labor. Careful experiments show these facts:

1. "On an average, a 20-acre field can be plowed in 60 per cent of the time required to plow the same area in one-acre fields, or 80 per cent of the time required to plow the same area in five-acre fields.

2. "Where the rows are 500 yards long, a farmer can cultivate 25 acres in the same length of time required to cultivate 20 acres where the rows are 100 yards long.

3. "Not only is time saved as indicated, but by having less turning the percentage of crop damaged by turning is reduced.

4. "It is not unusual in some sections to see a man working four or five fields of a tract of land that might as easily, or at small cost, be worked as one field; or having rows 100 yards long when they might be 500 or 1,000 yards long.

"Since with many crops man-and-horse labor and equipment-use make up about 60 per cent of the total production cost, the facts here given should interest all farmers who wish to reduce expenses." --A. B. BRYAN, Clemson Agricultural College.

EROSION CONTROL SCHOOL

Cooperating with Mr. W. P. Knox, Educational Director, and officials of CCC Camp SES-T-3, members of the Soil Erosion Service staff are giving a course in erosion control to enrollees. Meetings are held during a one hour period two evenings each week. At each meeting some phase of erosion control work is discussed by a specialist in that branch of the work. Seventy-five enrollees voluntarily signed up to take the course, and that they are interested is proved by the attention given and questions asked at the meetings.

Mr. Frank Ernest Hill of New York, who is visiting the camps in each of the Corps Areas, attended one of the recent meetings, and stated that the course was one of the most practical and worthwhile that he had encountered in any of the camps.

WOODLOT MANAGEMENT

Too much emphasis can not be placed on the destructiveness of woodlot fires. We do not set fire to our annual crops, but many of us disregard the value of our woodlots as crops of useful and essential products, and from year to year destroy future fuel wood and other material that is required for our livelihood and convenience.

In years gone by the supply of timber for post and fuel wood appeared to be inexhaustible but now practically all of the better species of trees have been removed. Fire prevents reproduction of these better species and repeated burning over of the woods finally results in their complete disappearance.

On a number of farms in the Duck Creek area plantings of pine and locust have been made. In several cases these plantings are on fields which have considerable old weed growth. If fire is allowed to sweep over these reforested areas, it will result in complete destruction of the young trees.

By proper management the farm woodlot which for a long time has furnished only a small amount of poor pasturage and little firewood can be made to pay greater dividends. If you are interested, let us help you make this part of your farm more productive.

ACTIVITIES OF CAMP SES-T-3 (ARMY DESIGNATION 896) FOR FEBRUARY 1935.

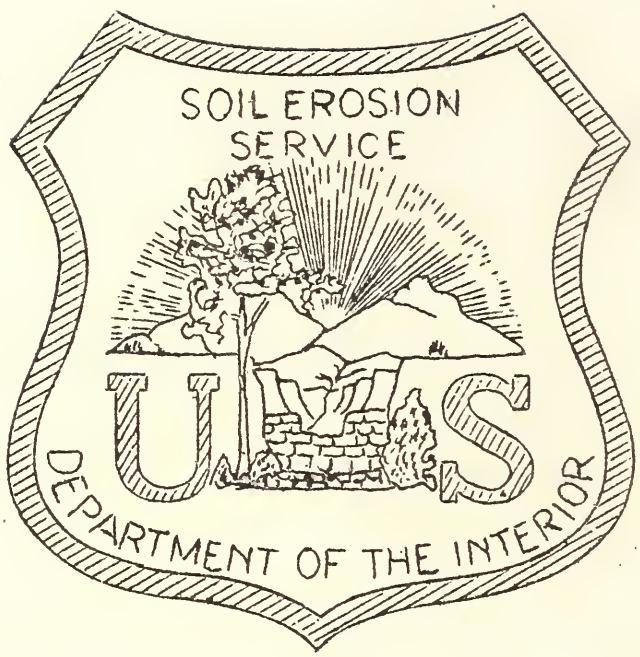
During the month of February the CCC boys worked on 24 farms in the Duck Creek watershed. Sixteen calendar days were suitable for field work and an average of 181 men were released to the camp superintendent for field duty each work day. These men worked 17,376 hours and did the following work:

1. Planted approximately 23,000 pine and black locust trees.
2. Moved 200 cubic yards of dirt from drainage ditches.
3. Built 597 dams of various types.
4. Sloped 419,160 square yards of gully banks.
5. Planted 13,278 linear feet of gully and channel banks averaging 20 feet wide with Bermuda sod.

-- J. H. Cheek, Camp Superintendent.

VISITORS

Mr. V. F. Fitzhugh, Teacher Vocational Agriculture, Tyler, Texas, and 47 students.
County Agent D. R. Ralph of Titus County and a group of six farmers.
Mr. T. B. Chambers, Assistant to Chief Engineer, S. E. S., Washington, D. C.
Mr. F. S. Edmiston, Chief Engineer, S. E. S., Minden, Louisiana.
Mr. T. C. Anderson, Junior Engineer, S. E. S., Minden, Louisiana.
Mr. H. L. McCall, Assistant Engineer, S. E. S., Ruston, Louisiana.
Mr. A. V. Osterberger, Junior Engineer, S. E. S., Ruston, Louisiana.
Messrs. Jno. R. Spivey and C. A. Moore, Bonham, Texas.
Mr. W. J. Moran, Bureau of Soils, College Station, Texas, accompanied by Mr. Burnett.
Messrs. C. P. Vickery and F. T. Ward, teachers of Vocational Agriculture, Mt. Pleasant, Texas, with group of thirty students and farmers.
Mr. Dennis E. Griffith, Bureau of Chemistry & Soils, Temple, Texas.
Mr. L. M. Roch, Mineola, Texas.
Mr. Leo F. Willenburg, Longview, Texas.
Mr. H. G. Lewis, Supt. Soil Erosion Station, Guthrie, Oklahoma.
Mr. E. C. Butterfield, Winona, Texas.
Mr. D. R. Ralph, County Agent, Mt. Pleasant, Texas.
Mr. H. S. Riesbol, Associate Agricultural Engineer, Soil Erosion Station, Guthrie, Oklahoma.
Mr. DeWitt Huckabee, Secretary-Treasurer, PCA, Mt. Pleasant, Texas.
Mr. J. W. Dogan, farmer, Mineola, Texas.
Mr. H. C. Beckman, farmer, Mineola, Texas.
Mr. Henry Edwards, Editor Tyler Journal, Tyler, Texas.
Mr. C. K. DeBusk, Chamber of Commerce, Jacksonville, Texas.
Mr. Ed Garner, Jacksonville, Texas.
Mr. Leon Stasney, Field Man, Land Dept. John Hancock Life Ins. Co., Dallas.
Mr. Jesse Shaw, Vocational Agriculture teacher, Wills Point, Texas, and Mr. V. O. Tedlie, County Agent, Van Zandt County, and forty-eight farmers of Van Zandt County.
Mr. M. N. Riggins, Kemp, Texas.
Mr. C. D. Ritter, Teacher Vocational Agriculture, Stubbs School, Kemp, Texas.
Prof. Dan Scoates, Head Agricultural Engineering Department, Texas A. & M. College, College Station, Texas.
Mr. G. L. Crawford, S. E. S., Washington, D. C.
Mr. G. W. Cross, Editor Times Review, Mt. Pleasant, Texas.
Mr. Ed L. McElroy, County Judge, Titus County, Texas.
Mr. Craddock Goins, Editorial writer, Tyler Courier Times-Telegraph, Tyler, Texas.
Mr. Eugene Butler, Editor "Progressive Farmer", Dallas, Texas.
Mrs. R. L. Lovelady, Tyler, Texas.
Messrs. T. B. Caldwell, Jr., livestock farming, and C. P. Vickory, Vocational Agriculture teacher, and seventeen Titus County farmers and business men.
Mr. H. V. Geib, Regional Director, S. E. S., Temple, Texas.
Messrs. P. E. Wallace, Gatchell, C. P. Vickery, Tom Caldwell, Mt. Pleasant, Texas.
Mr. Terrell Bartlett, Consulting Engineer, San Antonio, Texas.
Mr. J. H. Kidwell, Chamber of Commerce, Nixon, Texas.
Mr. I. H. Crutcher, Jr., General Foreman, State Highway Department, Tyler Division and fifteen Section Foremen.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